

METHOD OF FORMING A GATE STRUCTURE

Abstract

A method of forming a gate structure. A substrate having thereon at least one stacked gate is provided. The stacked gate has a gate insulating layer, a polysilicon layer, a silicate layer, and a cap layer. A sacrificial layer is deposited on the substrate, and etched backed to expose the cap layer and an upper portion of the silicate layer. Then, the exposed silicate layer is partially removed to form a recess. The recess is filled with silicon nitride. Finally, a spacer is formed on walls of the stacked gate.